

## REMARKS

### **Present Status of the Application**

Claims 12-20 were pending in this application. Claim 20 has been cancelled hereby without prejudice or disclaimer. Upon entry of this amendment, claims 12-19 will be pending herein and are believed to be in condition for allowance for the reasons stated below.

In the Office Action,

- Claim 20 was rejected under 35 U.S.C. §101; and
- Claims 12-20 were rejected under 35 U.S.C. §102(e) as being anticipated by Antia (US 6,347,124).

These grounds of rejection are respectfully traversed.

As set forth above, claim 20 has been cancelled, thereby rendering moot the asserted §101 rejection.

### **Rejection of Claims 12-19 under 35 U.S.C. §102(e)**

The rejection of claim 12 under 35 U.S.C. §102(e) should be withdrawn for the following reasons.

Claims 12 stands rejected under §102(e). As indicated in MPEP §2131, to anticipate a claim, the cited reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Antia fails to meet these stringent requirements when compared to the claimed invention of claim 12.

Specifically, an important difference between Antia and the claimed invention of claim 12 is the source of the information used to derive a scaling factor, and more specifically whether

the scaling factor is derived from the signal values before or after the scaling factor has been applied.

In contrast to Antia, the claimed invention of claim 12 clearly requires that the scaling factor should be derived from the signal values post-scaling. Claim 12 recites "... monitoring the probability distribution of the amplitudes of the scaled values ...".

Such a scheme is not described in Antia since the reference only describes techniques where the scale factor is derived from signal values pre-scaling. This is clear from Figure 3 of Antia where the calculation of the average signal value (step 44) applies to the signal prior to the scaling being applied (step 48). This is also clear from the description in Antia at columns 4 and 5. Equation 1 therein clearly indicates that the average value is derived from the signal  $s(n)$  which is before the scaling is applied (the scaling is described in equation 3 and shows the scaled signal  $s^{\wedge}$  being derived from  $s$ ).

It is respectfully submitted that this difference (post-scaling vs. pre-scaling) is more than sufficient to overcome Antia as an anticipatory reference under §102(e). Withdrawal of this ground of rejection of claim 12 is accordingly respectfully urged.

To the extent the Examiner might consider the claimed invention of claim 12 obvious under 35 U.S.C. §103(a), Applicant notes the following. Monitoring the probability distribution after the scaling has been applied provides benefits in terms of implementation complexity. For example, the bit width of the signal is lower after scaling than before scaling (this is the point of the scaling). As a result, there are fewer levels to monitor in the generation of the probability distribution when working with the signal post-scaling. Furthermore, by generating the scale from the signal post-scaling, the mechanism of generating the scaling value needs to use a feedback approach rather than a feed-forward approach. As those skilled in the art appreciate, these two approaches are quite different from one another and, significantly, there is absolutely no indication in Antia as to why such a change in approach would be considered.

Dependent claims 13-19 each include by reference all the limitation of respective base claim 9. Applicant therefore respectfully requests that the rejection of claims 13-19 under 35 U.S.C. §102(e) should also be withdrawn.

**CONCLUSION**

In view of the foregoing all of the claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone Applicants' undersigned representative at the number listed below.

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